

H 1799 US

Claims

- 5        1. A transceiver comprising a conductor foil carrying an opto-electronic component, a plug socket into which an optical waveguide plug connector can be inserted such that an optical waveguide of said optical waveguide plug connector is opposite said opto-electronic component, an plug section which is formed by an end section of said conductor foil and adapted to be connected with a complementary plug, wherein a signal path from said plug section to said opto-electronic component has a matched impedance.
- 10        2. The transceiver according to Claim 1, wherein a spacer serving as a stop for said optical waveguide plug connector is provided.
- 15        3. The transceiver according to Claim 2, wherein said spacer is a sealing frame arranged in a region of said opto-electronic component.
- 20        4. The transceiver according to Claim 3, wherein said sealing frame is arranged on said conductor foil.
- 25        5. The transceiver according to Claim 3, wherein at least part of an interior of said sealing frame is filled with a castable optically transparent material.
6. The transceiver according to Claim 5, wherein an overflow edge is provided which defines a level of said optically transparent material in said interior of said sealing frame.
7. The transceiver according to Claim 3, wherein said sealing frame is provided with at least one positioning hole facilitating a positioning relative to other components of said transceiver during assembly.
8. The transceiver according to Claim 3, wherein said sealing frame is provided with at least one guide hole for a guide pin of said optical waveguide plug connector.

9. The transceiver according to Claim 8, wherein said guide hole is provided with a lead-in surface.
10. The transceiver according to Claim 1, wherein said opto-electronic component is arranged on a leadframe made of metal and acting as a heat sink.
- 5 11. The transceiver according to Claim 10, wherein said leadframe is provided with at least one guide hole for a guide pin of said optical waveguide plug connector.
12. The transceiver according to Claim 1, wherein a driver/amplifier chip is provided which is directly bonded with said opto-electronic component.
- 10 13. The transceiver according to Claim 12, wherein a level of bond pads of said opto-electronic component is located above a level of bond pads of said driver/amplifier chip.
14. The transceiver according to Claim 13, wherein said level of said bond pads of said driver/amplifier chip is located above a level of bond pads of said conductor foil.
- 15 15. The transceiver according to Claim 14, wherein a wedge-wedge wire bonding process is used for bonding.
16. The transceiver according to Claim 15, wherein a bond wire is made of gold.
- 20 17. The transceiver according to Claim 1, wherein said opto-electronic component is arranged at right angles to said plug section of said conductor foil.
18. The transceiver according to Claim 1, wherein a housing is provided which is realized as a heat sink.
- 25 19. The transceiver according to Claim 1, wherein additional control elements are provided by means of which operating parameter of said transceiver can be adjusted.

20. The transceiver according to Claim 1, wherein said conductor foil has a signal path only on one side thereof.
21. The transceiver according to Claim 3, wherein said conductor foil has a rigid structure in said region of said opto-electronic component.
- 5 22. The transceiver according to Claim 1, wherein said conductor foil has a rigid structure in a region of said plug section.
23. The transceiver according to Claim 1, wherein said plug section is mounted so as to be displaceable.